

# **IRRIGATION ARRANGEMENTS IN ROCKINGHAM COUNTY, NORTH CAROLINA**

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UNIVERSITY OF NORTH CAROLINA

**U.N.C. WATER  
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Number 7**



IRRIGATION ARRANGEMENTS IN  
ROCKINGHAM COUNTY, NORTH CAROLINA

A Report of an Irrigation Survey in Rockingham  
County, Conducted in the Summer of 1962

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## Introduction

This is one of a group of reports of irrigation surveys made in the summer of 1962 covering eleven North Carolina counties. The surveys are part of a research project concerning arrangements by water users in selected areas of North Carolina to secure water sources. Conducting the surveys was James E. Martin, Jr., currently a second-year law student at the University of North Carolina, under the supervision of Milton S. Heath, Jr.\*

Briefly, the purpose of the irrigation surveys is to examine and analyze the following factors:

- .The nature and magnitude of farm irrigation in selected areas.
- .The types of crops irrigated.
- .The sources of water used.
- .The legal arrangements made by the irrigators to secure their sources of water, including purchase of land or water rights, agreements among irrigators and other water users concerning water use, permits required, etc.
- .Any disputes that may have arisen over sources of water affecting these irrigators, and the outcome of the disputes.

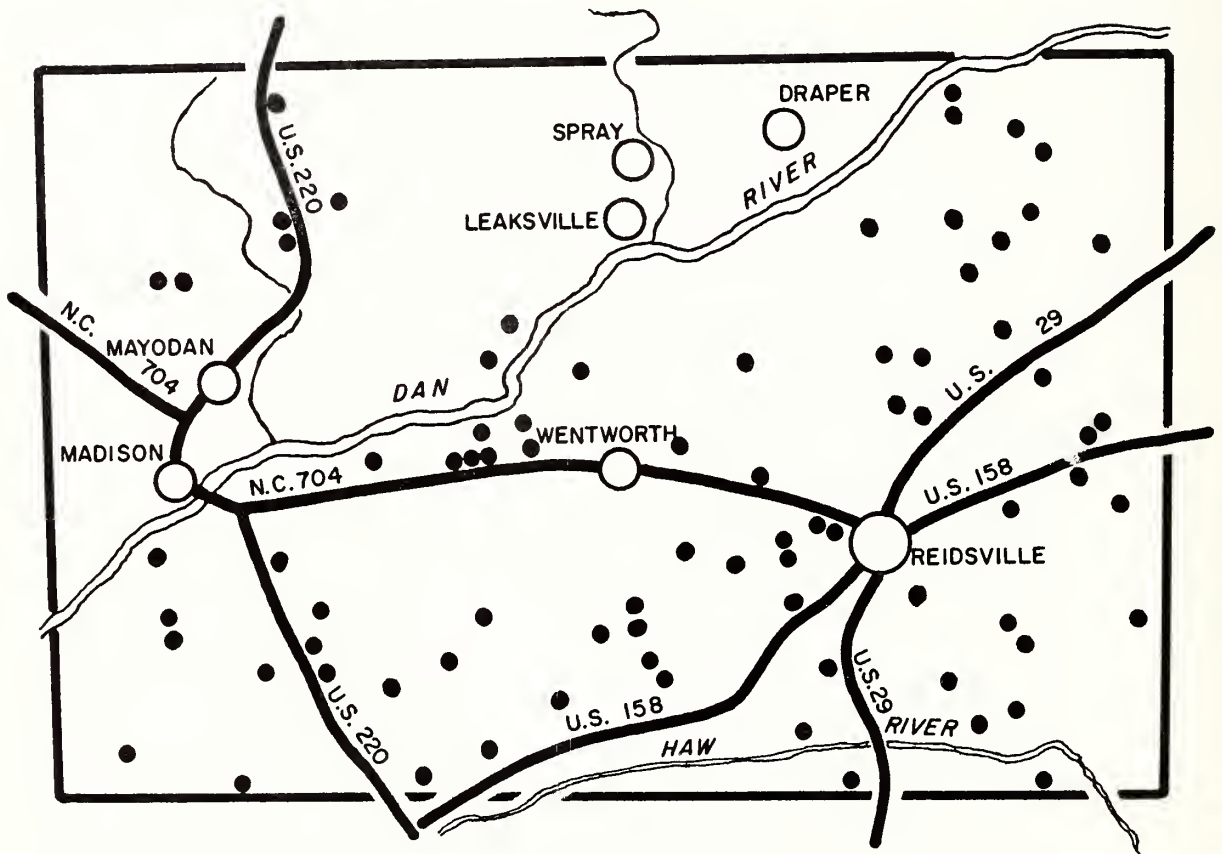
With this and other information developed through the research project, it is hoped that an accurate evaluation can be made of the operation of the existing structure of laws and political institutions affecting water use, of its weaknesses and strengths, and of its impact on water resource development.

The procedures followed in this survey are described in detail by Water Resource Paper No. 2. Briefly, the known irrigators were identified with the assistance of county agents and Soil Conservation Service personnel, and then were personally interviewed. A prepared questionnaire was used as a point of departure for the interviews.

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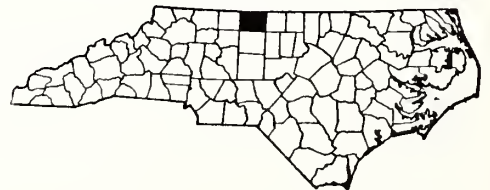
\*Water Resource Paper No. 1 contains a description of the over-all research project. Water Resource Paper No. 2 summarizes the 1962 irrigation surveys and reviews the procedures followed on the surveys.

## IRRIGATION IN ROCKINGHAM COUNTY



*Key:*

- REPRESENTS AN ACTIVE IRRIGATOR WHO WAS CONTACTED IN THIS SURVEY DURING THE SUMMER OF 1962.



*Note: The Rockingham survey covered a 12 1/2% sample of the county's estimated 600 irrigators.*



General Review of Irrigation  
in Rockingham County

Rockingham County's leading crop is tobacco. There are roughly 3,000 tobacco farms in the county with an estimated 600 of them actively irrigating.\* This survey includes a sample of 12-1/2 % or 75 of the irrigating tobacco farmers.

The multitude of wooded ridges and slopes make the area particularly well suited for the construction of irrigation ponds. Most of the irrigators in the county obtain water from branch or spring fed ponds. Many of the irrigators have several ponds conveniently located near their fields.

There were no unusual situations reported other than several irrigators in the Reidsville city limits who use city water--evidently finding this cheaper than other alternatives. The usage is metered at industrial rates. Several other farms have limited irrigation privileges in the city reservoir (see appendix for the terms). One easement situation was discovered where a farmer traded timber rights for an easement for his irrigation pond (see appendix for the terms).

Though the Dan River runs diagonally across a large portion of the county, among the farmers surveyed, only one reported having irrigated from it. He relied largely on his farm ponds. Apparently, constructing ponds near the field is more economical or more effective than using a river or stream, because of differences in the cost of labor, pumping and other items.

The irrigation systems are scattered throughout the county, but heaviest concentration appears to be in the eastern half of the county.

Summarized Results of Survey

1. Extent of coverage

Suggested list of irrigators (SCS Unit Conservationist and County Extension Chairman)--80

Farms reporting irrigation in 1959 U. S. Census of Agriculture--610

Persons contacted--78

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\*It is currently estimated that about 40% of the county's tobacco acreage allotments are irrigated.



Active irrigators contacted--73

Estimated number of irrigators in Rockingham County

SCS Unit Conservationist--450

County Extension Chairman--600

2. Time required for conduct of survey in Rockingham County

5-1/2 days for interviewing irrigators and others

3. Water sources

Ponds--69

Continuous Flow Ponds--64

Surface Ponds--10

Combination Usage--5

Streams--11

Reservoirs--1

City Water--2

Combination of Sources (ponds, streams, reservoirs)--10

Note: The information concerning water sources, including the classification of types of ponds, was derived from the irrigators themselves, not from personal inspection by the authors. An explanation of the terminology used here--e.g., "continuous flow ponds"--will be found in U.N.C. Water Resource Paper No. 2.

4. Types of crops

Tobacco (72 farms)

Largest farm--76 acres (not actually one farm but included rentals)

Smallest farm--4 acres

Average farm--15.79 acres

Truck (3 farms: 3, 4, 3 acres respectively)

Pasture (3 farms: 5, 6, 4 acres respectively)

It should be noted that the figures given above reflect the acreage irrigated and not necessarily the actual acreage of the respective farm.

5. Water usage

One farmer using city water in 1962 on 7.07 acres was billed for 13,300 cu. ft. of water at \$68.53. He reportedly irrigated one time during the season.

The other irrigator who used city water did not have a meter to measure water use but was billed on an hourly basis.

As to the remaining irrigators, there are no reliable data available concerning the amount of water usage, and no mechanical measuring devices are in use. (See Water Resource Paper No. 2 for further comment).



6. Expansion

No expansion planned--56

Expansion planned--16

7. Disputes over water

None reported

8. Purchase of water rights or agreements concerning irrigation

There were two joint pond situations but there were no formal agreements and the agreements were not available. One of the ponds was financed through the ASC program and a visit to one of their offices might determine in that type situation what the irrigation rights are. While in Rockingham the office was not available due to over work from crop damage from a hailstorm.

9. Acquisition of riparian lands, easements, etc.

One was reported (see appendix)

10. Recent irrigation trends

Recent droughts have made the farmers aware of the value of irrigation and judging from the number planning to expand, these droughts were partially responsible. The number of irrigators in the county apparently is still increasing.

Acknowledgments

SCS Unit Conservationist Grady L. Wise and Rockingham County Extension Chairman H. J. Hux gave us invaluable help in identifying and locating irrigators. We are very grateful to them, and to State Conservationist Richard M. Dailey and Howard Ellis of the State College Department of Engineering Extension for their usual generous co-operation.

The map at page 3 was prepared by Charles Nakamura of the Institute of Government.





APPENDIX: IRRIGATION AGREEMENTS

Book 480 Pages 338-339 Walter J. Irvin to City of Reidsville

"It is understood and agreed that the grantors, their heirs and assigns, shall have the right to use water from the reservoir to be constructed by the city upon said lands for irrigation purposes in connection with remaining part of the Walter J. Irvin farm so long as water is running over the spillway of the dam; provided that if in the opinion of the City Council there is no serious water shortage at the time and the water is not needed by the City the City Council may give the grantor, their heirs and assigns, the right to use water from the reservoir for irrigation purposes even though the water is not running over the spillway."

16 December 1955

Book 475 Pages 586-587 Lloyd W. Manley to City of Reidsville

"It is understood and agreed that the grantors, their heirs and assigns, shall have the right to use water from the reservoir to be constructed by the city upon said lands for irrigation purposes in connection with remaining part of the Lloyd W. Manley farm so long as water is running over the spillway of the dam; provided that if in the opinion of the City Council there is no serious water shortage at the time and the water is not needed by the City the City Council may give the grantor, their heirs and assigns, the right to use water from the reservoir for irrigation purposes even though the water is not running over the spillway."

21 September 1955

Book 574 Pages 306-307 Dan N. Baptist to William Patterson

WITNESSETH: ". . . whereas the said party of the second part desires to construct an irrigation and fish pond on these adjoining lands, and in doing so, he plans to construct a dam twenty feet across a small branch; . . . and, whereas the said parties of the first part desire to convey unto the said party of the second part, his heirs, and assigns, a perpetual easement in, to and over a sufficient amount of his land to enable the dam to be filled at this point and sufficient ground above the water line to enable the said Patterson to maintain said pond, and in granting this easement, right, and privilege is given unto him, his heirs, and assigns, to forever flood this land, to use it for a fishing, boating and irrigation pond and for any other reasonable use."

25 October 1961





